

IN THE CLAIMS

Please amend the following claims as indicated below:

- 600 B' 1. (Cancelled) A baseband direct sequence spread spectrum CDMA transceiver.
2. (Cancelled) The baseband direct sequence spread spectrum CDMA transceiver of Claim 1 further comprising a single modulation stage.
3. (Currently Amended) ~~The A~~ baseband direct sequence spread spectrum CDMA transceiver ~~of Claim 2 further comprising:~~
a transmitter which modulates data by a Hadamard function having pseudorandomly shuffled rows or columns, wherein the data is only modulated in one single modulation step with no additional modulation.
4. (Cancelled) The baseband direct sequence spread spectrum CDMA transceiver of Claim 1 further comprising a digital-to-analog converter which converts a digital data signal into an equivalent analog signal, wherein an output of the converter is directly connected to an antenna.
5. (Currently Amended) The baseband direct sequence spread spectrum CDMA transceiver of Claim ~~1~~ 3 further comprising an active servo system for canceling transmit signals ~~for~~ from receive signals.

6. (Currently Amended) The baseband direct sequence spread spectrum CDMA transceiver of Claim 1 3, wherein RF signals are spread across DC to 30 MHz.

7. (Currently Amended) ~~The~~ A baseband direct sequence spread spectrum CDMA transceiver of ~~Claim 1~~ further comprising an antenna which is at least ten times shorter than the transmit signal wavelength.

8. (Currently Amended) The baseband direct sequence spread spectrum CDMA transceiver of Claim 1 2, wherein the antenna is driven mismatched.

9. (Cancelled) The baseband direct sequence spread spectrum CDMA transceiver of Claim 1 further comprising circuitry for peer-to-peer cellular communications.

10. (Currently Amended) The baseband direct sequence spread spectrum CDMA transceiver of Claim 1 2 comprising a ~~full~~ code division duplex mode of operation.

11. (Cancelled) The baseband direct sequence spread spectrum CDMA transceiver of Claim 1 comprising a half duplex mode of operation.

12. (Cancelled) A baseband direct sequence spread spectrum CDMA transmitter.

13. (Currently Amended) ~~The~~ A baseband direct sequence spread spectrum CDMA transmitter of ~~Claim 12~~ having a Hadamard function with pseudorandomly

shuffled rows or columns, wherein there is only one single modulation step for modulating the data before transmission.

14. (Cancelled) The baseband direct sequence spread spectrum CDMA transmitter of Claim 12 further comprising a digital-to-analog converter which converts a digital data signal into an equivalent analog signal, wherein an output of the converter is directly connected to an antenna.

15. (Currently Amended) The baseband direct sequence spread spectrum CDMA transmitter of Claim 12 13, wherein RF signals are spread across DC to 30 MHz.

16. (Cancelled) The baseband direct sequence spread spectrum CDMA transmitter of Claim 12 13 further comprising circuitry for peer-to-peer cellular communications.

17. (Currently Amended) The baseband direct sequence spread spectrum CDMA transmitter of Claim 1 13 comprising a ~~full~~ code division duplex mode of operation.

18. (Cancelled) The baseband direct sequence spread spectrum CDMA transmitter of Claim 1 comprising a half duplex mode of operation.

19. (Cancelled) A method for transmitting an RF signal, comprising the steps of:

modulating a data signal with a pseudo random code;

modulating the data signal with an orthogonal code;

transmitting the data signal as baseband direct sequence spread spectrum CDMA.

20. (Cancelled) The method of Claim 19 further comprising the step of converting a digital data signal into an equivalent analog signal which is directly transmitted by an antenna over the air.

21. (Currently Amended) ~~The A method for transmitting an RF signal of Claim 19 further comprising: the step of~~
modulating a data signal with an orthogonal pseudo random code;
transmitting the data signal as a baseband direct sequence spread spectrum CDMA, wherein no additional modulation is performed on the data signal before transmission;

Claim 1
A'
actively serving a transmit signal to cancel the transmit signal from a receive signal.

22. (Currently Amended) The method of Claim 19 21 further comprising the step of spreading a baseband signal across DC to 30 MHz.

23. (Currently Amended) The method of Claim 19 21 further comprising the step of using a same antenna to transmit and receive baseband signals in a full duplex mode of operation.

24. (Cancelled) The method of Claim 19 further comprising the step of transmitting baseband signals for peer-to-peer cellular communications.

25. (Currently Amended) A method for transmitting an RF signal, comprising the steps of:

modulating a data signal in a single step with a Hadamard function having pseudorandomly scrambled rows;

transmitting the data signal as baseband direct sequence spread spectrum CDMA.

26. (Original) The method of Claim 25 further comprising the step of converting a digital data signal into an equivalent analog signal which is directly transmitted by an antenna over the air, wherein the antenna is at least ten times shorter than the wavelength of the signal being transmitted.

27. (Original) The method of Claim 25 further comprising the step of actively servoing a transmit signal to cancel the transmit signal from a receive signal.

28. (Original) The method of Claim 25 further comprising the step of spreading a baseband signal across DC to 30 MHz.

29. (Original) The method of Claim 25 further comprising the step of using a same antenna to transmit and receive baseband signals in a full code division duplex mode of operation.

30. (Original) The method of Claim 25 further comprising the step of transmitting baseband signals for peer-to-peer cellular communications.